

REMARKS/ARGUMENTS

By way of this Amendment and Reply, independent Claims 1, 13, 14, 26, 33, 42 and 52 have been amended. No new matter is added. Support for these amendments can be found, for example, in Fig. 3 and the associated text of the present application, and in Fig. 13 and the associated text of U.S. Patent No. 6,620,642, which was incorporated by reference in the present application (paragraphs [0033] and [0035] have been amended to update the specification with the patent numbers of the previously incorporated by reference applications, which were filed on June 29, 2001, and are now Patent Nos. 6,620,642, 6,724,794, 6,753,197, and 6,790,691).

Claims 35-41 were previously canceled. Claims 1-34 and 42-61 are currently pending in this application.

I. Claim Rejections Under 35 U.S.C. § 103(a)

In section 3 of the instant Office Action, Claims 1-34 and 42-61 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,763,157 to Williams, *et al.* (hereinafter "Williams '157") in view of U.S. Patent No. 6,614,949 to Williams et al. (hereinafter "Williams '949"). For at least the following reasons, the rejection is respectfully traversed.

At the outset, Applicant respectfully notes that Williams '157 was filed on June 4, 2002, after the filing date (June 29, 2001) of the present application. Accordingly, Williams '157 may not be used as prior art against the claims of the present application. To the extent that the Examiner believes that the elements relied upon in Williams '157 find support in its parent application (U.S. Patent No. 6,398,425, of which Williams '157 is a continuation-*in-part*), Applicant provides the following remarks.

Amended independent Claim 1 recites, among other elements, a "at least two optical devices . . . formed on a first side of a common substrate" and a "grouping trench" that "extends from a side opposite the first side of the common substrate." Amended independent Claims 13, 14, 26, 33, 42, and 52 each recite similar elements.

By contrast, Williams '157 and Williams '949, whether considered separately or in a proper combination, fail to disclose, teach, or suggest at least these elements.

On page 3 of the Office Action, the Examiner conceded that Williams '157 fails to disclose a grouping trench, but relied upon col. 4, lines 40-57 of Williams '949 to supply this feature. The cited portion of Williams '949 refers to Fig. 4 (reproduced below together with Fig. 5), and describes that “a grid or other suitable etch-mask pattern is applied to electrical layer 66.” As shown in Fig. 4, the electrical layer 66 is on the front side of the optical devices. Thus, the purported grouping trench extends from the front side of the substrate. This is further evident from col. 5, lines 16-17 of Williams '949, which describes with reference to Fig. 5 that that optical device array chip 60 is then “flip-chip bonded to ASIC substrate 50” (emphasis added as indicated by underlining).

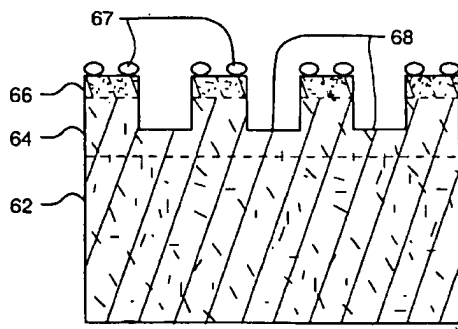


FIG. 4

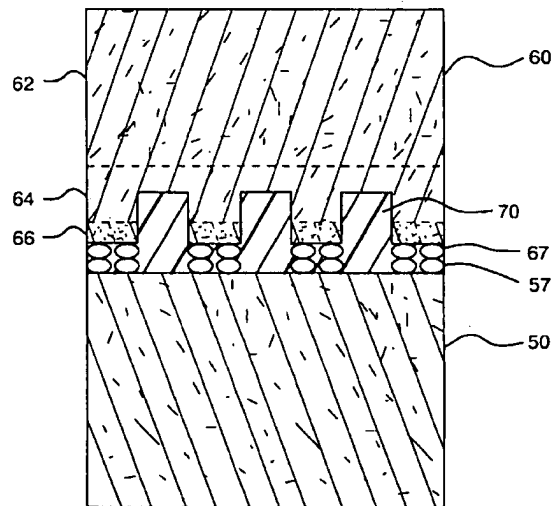


FIG. 5

Thus, Williams '949 fails to disclose, teach, or suggest an optical module that includes “at least two optical devices . . . formed on a first side of a common substrate” and a “grouping trench” that “extends from a side opposite the first side of the common substrate” as recited in independent Claim 1, or similar elements recited in independent Claims 13, 14, 26, 33, 42, and 52.

Applicant also notes that there is no reason to combine Williams '157 and Williams '949. Col. 7, lines 7-14 of Williams '157 states (emphasis added as indicated by underlining):

On a larger scale, the methodology of the invention provides for periodic or automatic alignment assessments of the connector to the optical planar array to guard against creeping physical re-alignment due to environmental effects such as deforming temperature, torque or pressure on the device. When necessary, the fill, self-alignment mapping procedure can be run again to reset the baseline emitter and detector sets for each channel.

Thus, Williams '157 aims at facilitating the automatic alignment process.

Col. 3, lines 3-7 of Williams '157 states (emphasis added as indicated by underlining):

In one embodiment of the self-aligning apparatus, the processing section cycles through the detectors one at a time with one or more emitters active to precisely locate the illumination area. The cycling establishes a mapping of the measured values.

Col. 3, lines 63-67 of Williams '157 states (emphasis added as indicated by underlining):

An additional object is the multiplexing/demultiplexing device, wherein the processing section cycles through the detectors one at a time for a single emitter to establish the channel. Alternatively, all the emitters can be cycled for an individual detector.

Thus, Williams '157 requires the devices to be individual rather than being grouped, and grouping of the devices can hinder the effort of the alignment process. Thus, Williams '157 teaches away from the claimed embodiments. Applicant respectfully submits that a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983).

Further, if Williams '157 were to be combined with other references or to be modified to have grouped devices, the very purpose of Williams '157, that is, accurately aligning of the connector to the optical planar array, would be defeated. Rather than being able to cycle through the devices "one at a time" as described in the above passages to establish a "mapping" to "precisely locate the illumination area" (which as known in the art prefers a higher resolution as dictated by the fine pitch of individual devices), the resulting modified system would only have coarse alignment defined by groups of devices, instead of fine alignment defined individual devices. If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

In view of the above, the rejection under 35 U.S.C. § 103(a) cannot be properly maintained. Thus, independent Claims 1, 13, 14, 26, 33, 42, and 52 and their respectively associated dependent claims are patentable over Williams '157 and Williams '949 for at least the reasons set forth above. Accordingly, Applicant hereby respectfully requests reconsideration and withdrawal of the rejection.

* * *

It is submitted that each outstanding objection and rejection to the Application has been overcome, and that the Application is in a condition for allowance. Applicant respectfully requests consideration and allowance of all pending claims.

It should also be noted that although arguments have been presented with respect to certain claims herein, the recited subject matter as well as various other subject matter and/or combinations of subject matter may be patentable for other reasons. Further, the failure to address any statement by the Examiner herein should not be interpreted as acquiescence or agreement with such statement. Applicant expressly reserves the right to set forth additional and/or alternative reasons for patentability and/or allowance with the present Application or in

any other future proceeding, and to rebut any statement presented by the Examiner in this or other papers during prosecution of the present Application.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present Application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this Application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extension of time is needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extension fee to Deposit Account No. 19-0741.

Respectfully submitted,

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